

Practitioner's Docket No. \_\_\_\_\_

**CHAPTER II**

Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.'" M.P.E.P., § 601, 7th ed

**TRANSMITTAL LETTER**  
**TO THE UNITED STATES ELECTED OFFICE (EO/US)**  
**(ENTRY INTO U.S. NATIONAL PHASE UNDER CHAPTER II)**

INTERNATIONAL APPLICATION NO	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/FR00/02568	Sep. 15, 2000	Sep. 15, 1999

TITLE OF INVENTION

SIGHT LOCKING DEVICE

APPLICANT(S)

JEANNIN, Hubert

Box PCT

Assistant Commissioner for Patents

Washington D.C. 20231

ATTENTION: EO/US

**CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10\***

(When using Express Mail, the Express Mail label number is mandatory;  
 Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

deposited with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231

37 C.F.R. § 1.8(a)

37 C.F.R. § 1.10 \*

with sufficient postage as first class mail.

as "Express Mail Post Office to Addressee"

Mailing Label

TRANSMISSION

EL801596161US

facsimile transmitted to the Patent and Trademark Office, (703) \_\_\_\_\_

Signature

John S. Egbert

(type or print name of person certifying)

\* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 1 of 9)

**NOTE:** To avoid abandonment of the application, the applicant shall furnish to the USPTO, not later than 20 months from the priority date: (1) a copy of the international application, unless it has been previously communicated by the International Bureau or unless it was originally filed in the USPTO; and (2) the basic national fee (see 37 C.F.R. § 1.492(a)). The 30-month time limit may not be extended. 37 C.F.R. § 1.495.

**WARNING:** Where the items are those which can be submitted to complete the entry of the international application into the national phase are subsequent to 30 months from the priority date the application is still considered to be in the international state and if mailing procedures are utilized to obtain a date the express mail procedure of 37 C.F.R. § 1.10 must be used (since international application papers are not covered by an ordinary certificate of mailing—See 37 C.F.R. § 1.8).

**NOTE:** Documents and fees must be clearly identified as a submission to enter the national state under 35 U.S.C. § 371 otherwise the submission will be considered as being made under 35 U.S.C. § 111. 37 C.F.R. § 1.494(f).

- I. Applicant herewith submits to the United States Elected Office (EO/US) the following items under 35 U.S.C. § 371:
  - a.  This express request to immediately begin national examination procedures (35 U.S.C. § 371(f)).
  - b.  The U.S. National Fee (35 U.S.C. § 371(c)(1)) and other fees (37 C.F.R. § 1.492) as indicated below:

107088005  
JC13 Rec'd PCT/PTO 11 MAR 2002

2. Fees

CLAIMS FEE	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
<input type="checkbox"/> *	<b>TOTAL CLAIMS</b>	16 -20=		× \$18.00=	\$
<input type="checkbox"/>	<b>INDEPENDENT CLAIMS</b>	1 -3=		× \$80.00=	
	<b>MULTIPLE DEPENDENT CLAIM(S) (if applicable)</b>			+ \$270.00	
<b>BASIC FEE**</b>	<input type="checkbox"/> <b>U.S. PTO WAS INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY</b> Where an International preliminary examination fee as set forth in § 1.482 has been paid on the international application to the U.S. PTO: <ul style="list-style-type: none"> <li><input type="checkbox"/> and the international preliminary examination report states that the criteria of novelty, inventive step (non-obviousness) and industrial activity, as defined in PCT Article 33(1) to (4) have been satisfied for all the claims presented in the application entering the national stage (37 C.F.R. § 1.492(a)(4)) ..... \$100.00</li> <li><input type="checkbox"/> and the above requirements are not met (37 C.F.R. § 1.492(a)(1)) ..... \$690.00</li> </ul> <input checked="" type="checkbox"/> <b>U.S. PTO WAS NOT INTERNATIONAL PRELIMINARY EXAMINATION AUTHORITY</b> Where no international preliminary examination fee as set forth in § 1.482 has been paid to the U.S. PTO, and payment of an international search fee as set forth in § 1.445(a)(2) to the U.S. PTO: <ul style="list-style-type: none"> <li><input type="checkbox"/> has been paid (37 C.F.R. § 1.492(a)(2)) ..... \$710.00</li> <li><input type="checkbox"/> has not been paid (37 C.F.R. § 1.492(a)(3)) ..... \$1000.00</li> <li><input checked="" type="checkbox"/> where a search report on the international application has been prepared by the European Patent Office or the Japanese Patent Office (37 C.F.R. § 1.492(a)(5)) ..... \$880.00</li> </ul>		890		
	<b>Total of above Calculations</b>	=	890		
<b>SMALL ENTITY</b>	Reduction by 1/2 for filing by small entity, if applicable. Assertion must be made. (note 37 C.F.R. § 1.27)		-	445	
	<b>Subtotal</b>			445	
	<b>Total National Fee</b>	\$	445		
	Fee for recording the enclosed assignment document \$40.00 (37 C.F.R. § 1.21(h)). (See Item 13 below). See attached "ASSIGNMENT COVER SHEET".				
<b>TOTAL</b>		<b>Total Fees enclosed</b>	\$ 445		

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 3 of 9)

\*See attached Preliminary Amendment Reducing the Number of Claims.

Attached is a  check  money order in the amount of \$ \_\_\_\_\_

Authorization is hereby made to charge the amount of \$ 445 \_\_\_\_\_

to Deposit Account No. 08-0879 \_\_\_\_\_

to Credit card as shown on the attached credit card information authorization form PTO-2038.

**WARNING:** Credit card information should not be included on this form as it may become public.

Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

**WARNING:** "To avoid abandonment of the application the applicant shall furnish to the United States Patent and Trademark Office not later than the expiration of 30 months from the priority date: \* \* \* (2) the basic national fee (see § 1.492(a)). The 30-month time limit may not be extended." 37 C.F.R. § 1.495(b).

**WARNING:** If the translation of the international application and/or the oath or declaration have not been submitted by the applicant within thirty (30) months from the priority date, such requirements may be met within a time period set by the Office. 37 C.F.R. § 1.495(b)(2). The payment of the surcharge set forth in § 1.492(e) is required as a condition for accepting the oath or declaration later than thirty (30) months after the priority date. The payment of the processing fee set forth in § 1.492(f) is required for acceptance of an English translation later than thirty (30) months after the priority date. Failure to comply with these requirements will result in abandonment of the application. The provisions of § 1.136 apply to the period which is set. Notice of Jan. 3, 1993, 1147 O.G. 29 to 40.

Assertion of Small Entity Status

Applicant hereby asserts status as a small entity under 37 C.F.R. § 1.27.

**NOTE:** 37 C.F.R. § 1.27(c) deals with the assertion of small entity status, whether by a written specific declaration thereof or by payment as a small entity of the basic filing fee or the fee for the entry into the national phase as states:

"(c) Assertion of small entity status. Any party (person, small business concern or nonprofit organization) should make a determination, pursuant to paragraph (f) of this section, of entitlement to be accorded small entity status based on the definitions set forth in paragraph (a) of this section, and must, in order to establish small entity status for the purpose of paying small entity fees, actually make an assertion of entitlement to small entity status, in the manner set forth in paragraphs (c)(1) or (c)(3) of this section, in the application or patent in which such small entity fees are to be paid.

(1) Assertion by writing. Small entity status may be established by a written assertion of entitlement to small entity status. A written assertion must:

(i) Be clearly identifiable;  
(ii) Be signed (see paragraph (c)(2) of this section); and

(iii) Convey the concept of entitlement to small entity status, such as by stating that applicant is a small entity, or that small entity status is entitled to be asserted for the application or patent. While no specific words or wording are required to assert small entity status, the intent to assert small entity status must be clearly indicated in order to comply with the assertion requirement.

(2) Parties who can sign and file the written assertion. The written assertion can be signed by:

(i) One of the parties identified in §§ 1.33(b) (e.g., an attorney or agent registered with the Office), §§ 3.73(b) of this chapter notwithstanding, who can also file the written assertion;

(ii) At least one of the individuals identified as an inventor (even though a §§ 1.63 executed oath or declaration has not been submitted), notwithstanding §§ 1.33(b)(4), who can also file the written assertion pursuant to the exception under §§ 1.33(b) of this part; or

(iii) An assignee of an undivided part interest, notwithstanding §§ 1.33(b)(3) and 3.73(b) of this chapter, but the partial assignee cannot file the assertion without resort to a party identified under §§ 1.33(b) of this part.

(3) Assertion by payment of the small entity basic filing or basic national fee. The payment, by any party, of the exact amount of one of the small entity basic filing fees set forth in §§ 1.16(a), (f), (g), (h), or (k), or one of the small entity basic national fees set forth in §§ 1.492(a)(1), (a)(2), (a)(3), (a)(4), or (a)(5), will be treated as a written assertion of entitlement to small entity status even if the type of basic filing or basic national fee is inadvertently selected in error.

(i) If the Office accords small entity status based on payment of a small entity basic filing or basic national fee under paragraph (c)(3) of this section that is not applicable to that application, any balance of the small entity fee that is applicable to that application will be due along with the appropriate surcharge set forth in §§ 1.16(e), or §§ 1.16(l).

(ii) The payment of any small entity fee other than those set forth in paragraph (c)(3) of this section (whether in the exact fee amount or not) will not be treated as a written assertion of entitlement to small entity status and will not be sufficient to establish small entity status in an application or a patent."

3.  A copy of the International application as filed (35 U.S.C. § 371(c)(2)):

NOTE: Section 1.495 (b) was amended to require that the basic national fee and a copy of the international application must be filed with the Office by 30 months from the priority date to avoid abandonment. "The International Bureau normally provides the copy of the international application to the Office in accordance with PCT Article 20. At the same time, the International Bureau notifies applicant of the communication to the Office. In accordance with PCT Rule 47.1, that notice shall be accepted by all designated offices as conclusive evidence that the communication has duly taken place. Thus, if the applicant desires to enter the national stage, the applicant normally need only check to be sure the notice from the International Bureau has been received and then pay the basic national fee by 30 months from the priority date." Notice of Jan. 7, 1993, 1147 O.G. 29 to 40, at 35-36. See item 14c below.

- a.  is transmitted herewith.
- b.  is not required, as the application was filed with the United States Receiving Office.
- c.  has been transmitted
  - i.  by the International Bureau.

Date of mailing of the application (from form PCT/1B/308):

\_\_\_\_\_

ii.  by applicant on \_\_\_\_\_ (Date)

4.  A translation of the International application into the English language (35 U.S.C. § 371(c)(2)):

- a.  is transmitted herewith.
- b.  is not required as the application was filed in English.
- c.  was previously transmitted by applicant on \_\_\_\_\_ (Date)
- d.  will follow.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 5 of 9)

5.  Amendments to the claims of the International application under PCT Article 19 (35 U.S.C. § 371(c)(3)):

NOTE: *The Notice of January 7, 1993 points out that 37 C.F.R. § 1.495(a) was amended to clarify the existing and continuing practice that PCT Article 19 amendments must be submitted by 30 months from the priority date and this deadline may not be extended. The Notice further advises that: "The failure to do so will not result in loss of the subject matter of the PCT Article 19 amendments. Applicant may submit that subject matter in a preliminary amendment filed under section 1.121. In many cases, filing an amendment under section 1.121 is preferable since grammatical or idiomatic errors may be corrected." 1147 O.G. 29-40, at 36.*

- a.  are transmitted herewith.
- b.  have been transmitted
  - i.  by the International Bureau.

Date of mailing of the amendment (from form PCT/1B/308):

- ii.  by applicant on \_\_\_\_\_. (Date)
- c.  have not been transmitted as
  - i.  applicant chose not to make amendments under PCT Article 19.

Date of mailing of Search Report (from form PCT/ISA/210.):

- ii.  the time limit for the submission of amendments has not yet expired. The amendments or a statement that amendments have not been made will be transmitted before the expiration of the time limit under PCT Rule 46.1.

6.  A translation of the amendments to the claims under PCT Article 19 (38 U.S.C. § 371(c)(3)):

- a.  is transmitted herewith.
- b.  is not required as the amendments were made in the English language.
- c.  has not been transmitted for reasons indicated at point 5(c) above.

7.  A copy of the international examination report (PCT/IPEA/409)

- is transmitted herewith.
- is not required as the application was filed with the United States Receiving Office.

8.  Annex(es) to the international preliminary examination report

- a.  is/are transmitted herewith.
- b.  is/are not required as the application was filed with the United States Receiving Office.

9.  A translation of the annexes to the international preliminary examination report

- a.  is transmitted herewith.
- b.  is not required as the annexes are in the English language.

(Transmittal Letter to the United States Elected Office (EO/US) [13-18]—page 6 of 9)

10.  An oath or declaration of the inventor (35 U.S.C. § 371(c)(4)) complying with 35 U.S.C. § 115

- was previously submitted by applicant on \_\_\_\_\_. (Date)
- is submitted herewith, and such oath or declaration
  - is attached to the application.
  - identifies the application and any amendments under PCT Article 19 that were transmitted as stated in points 3(b) or 3(c) and 5(b); and states that they were reviewed by the inventor as required by 37 C.F.R. § 1.70.
- will follow.

II. Other document(s) or information included:

11.  An International Search Report (PCT/ISA/210) or Declaration under PCT Article 17(2)(a):

- is transmitted herewith.
- has been transmitted by the International Bureau.  
Date of mailing (from form PCT/IB/308): \_\_\_\_\_
- is not required, as the application was searched by the United States International Searching Authority.
- will be transmitted promptly upon request.
- has been submitted by applicant on \_\_\_\_\_. (Date)

12.  An Information Disclosure Statement under 37 C.F.R. §§ 1.97 and 1.98:  
a.  is transmitted herewith.

Also transmitted herewith is/are:

- Form PTO-1449 (PTO/SB/08A and 08B).
- Copies of citations listed.
- will be transmitted within THREE MONTHS of the date of submission of requirements under 35 U.S.C. § 371(c).
- was previously submitted by applicant on \_\_\_\_\_. (Date)

13.  An assignment document is transmitted herewith for recording.

A separate  "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or  FORM PTO 1595 is also attached.

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14.  Additional documents:

- a.  Copy of request (PCT/RO/101)
- b.  International Publication No. WO 01/22151
  - i.  Specification, claims and drawing
  - ii.  Front page only
- c.  Preliminary amendment (37 C.F.R. § 1.121)
- d.  Other

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15.  The above checked items are being transmitted

- a.  before 30 months from any claimed priority date.
- b.  after 30 months.

16.  Certain requirements under 35 U.S.C. § 371 were previously submitted by the applicant on \_\_\_\_\_, namely:

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**AUTHORIZATION TO CHARGE ADDITIONAL FEES**

**WARNING:** Accurately count claims, especially multiple defendant claims, to avoid unexpected high charges if extra claims are authorized.

**NOTE:** "A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

**NOTE:** "Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).

Please charge, in the manner authorized above, the following additional fees that may be required by this paper and during the entire pendency of this application:

37 C.F.R. § 1.492(a)(1), (2), (3), and (4) (filing fees)

**WARNING:** Because failure to pay the national fee within 30 months without extension (37 C.F.R. § 1.495(b)(2)) results in abandonment of the application, it would be best to always check the above box.

37 C.F.R. § 1.492(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid on these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.492(d)), it might be best not to authorize the PTO to charge additional claim fees, except possible when dealing with amendments after final action.

37 C.F.R. § 1.17 (application processing fees)  
 37 C.F.R. § 1.17(a)(1)–(5) (extension fees pursuant to § 1.136(a)).  
 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying . . . issue fee." From the wording of 37 C.F.R. § 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

37 C.F.R. § 1.492(e) and (f) (surcharge fees for filing the declaration and/or filing an English translation of an International Application later than 30 months after the priority date).

Reg. No.: 30,627

Tel. No.: (713) 224-8080

Customer No.: 24106

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SIGNATURE OF PRACTITIONER

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John S. Egbert

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(type or print name of practitioner)  
 Harrison & Egbert  
 412 Main St., 7th Floor

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P.O. Address

Houston, Texas 77002

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: JEANNIN, Hubert

SERIAL NO.: (International Serial No. PCT/FR00/02568)

FILED: Herewith (International Filing Date: September 15, 2000)

TITLE: SIGHT LOCKING DEVICE

## PRELIMINARY AMENDMENT

Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

In conjunction with the filing of the present application, and prior to an initial Official Action on this matter, please amend the above-identified application as follows:

Please note that the following amendments apply to the attached specification and claims labeled for U.S. filing. This combined application incorporates the original application and annex to the International Preliminary Examination Report in the proper order, including the correct original and substitute pages, claims and drawing sheets.

IN THE SPECIFICATION

In Paragraph [0023], please substitute the paragraph as follows:

The goals, characteristics, and advantages above, and even others, are best exhibited in the description that follows and attached drawings.

In Paragraph [0032], please substitute the paragraph as follows:

Figure 9 is a flat plan view, having a schematic nature and in a section, of a visual balancing device made according to a first development of the invention.

In Paragraph [0033], please substitute the paragraph as follows:

Figure 10 shows a schematic view of the invention in a windshield.

In Paragraph [0034], please substitute the paragraph as follows:

Figure 11 shows another schematic view of an advantageous development of the invention projected on a lens or other body.

### IN THE CLAIMS

In Claim 1, please substitute the claim as follows:

1. (Amended) Anti-kinetosis visual balancing device comprising an impermeable, transparent or translucent tubular container (2) closed on itself, in which at least two substances (3; 5, 7, 8) are contained in different states and/or masses, from which at least one visible interface marks lateral vision reference points (4, 4') arranged in the peripheral field of vision of an eye or eyes of a user of this device, in a manner such that the user can visually perceive a situation corresponding to the one perceived by the semi-circular canals of the inner ear.

In Claim 2, please substitute the claim as follows:

2. (Amended) Anti-kinetosis visual balancing device according to claim 1, wherein at least one (3) of the substances (3; 5, 7, 8), contained in the tube closed on itself, is comprised of a liquid.

In Claim 3, please substitute the claim as follows:

3. (Amended) Anti-kinetosis visual balancing device according to claim 2, wherein a second substance (5) contained in the tube (2) closed on itself, is comprised of a gaseous fluid, such as, for example, air.

In Claim 4, please substitute the claim as follows:

4. (Amended) Anti-kinetosis visual balancing device according to Claim 1, wherein said substances contained in the tube (2) closed on itself are comprised of liquids that cannot be mixed together.

In Claim 5, please substitute the claim as follows:

5. (Amended) Anti-kinetosis visual balancing device according to Claim 3, wherein said tube (2) closed on itself contains equal volumes of gas (5) and liquid (3) or liquids that cannot be mixed together.

In Claim 6, please substitute the claim as follows:

6. (Amended) Anti-kinetosis visual balancing device according to claim 3, wherein a volume of the gaseous fluid contained in the tube (2) closed on itself, is comprised of a single bubble (5').

In Claim 7, please substitute the claim as follows:

7. (Amended) Anti-kinetosis visual balancing device according to Claim 1, wherein at least one of the substances contained in the tube (2) closed on itself, is colored or stained.

In Claim 8, please substitute the claim as follows:

8. (Amended) Anti-kinetosis visual balancing device according to Claim 2, wherein interface(s) of the substances (3, 5) contained in the tube (2) closed on itself are marked by a floating (6, 6') or submerged reference point.

In Claim 9, please substitute the claim as follows:

9. (Amended) Anti-kinetosis visual balancing device according to claim 2, wherein said second one of the substances contained in the tube closed on itself (2) is comprised of a floating solid comprised of a circular ring or of an circular portion of the ring (8) equipped with a weight (9).

In Claim 10, please substitute the claim as follows:

10. (Amended) Anti-kinetosis visual balancing device according to claim 1, wherein one of the substances contained in the tube (2) closed on itself is comprised of a ball (7) of solid material that can be displaced in the tube (2).

In Claim 11, please substitute the claim as follows:

11. (Amended) Anti-kinetosis visual balancing device according to Claim 1, wherein said tube (2) closed on itself has a general shape of a ring incorporated or added on, for example, to one or two lenses (V) of glasses, or to frames (M) of glasses, with or without lens(es).

In Claim 12, please substitute the claim as follows:

12. (Amended) Anti-kinetosis visual balancing device according to Claim 1, wherein said tube comprises at least one deflection (2A) that forms a bend with a front part (2) of the visual balancing device, said deflection communicating with inside space of the front part (2) in such a way that the substances (3; 5) can circulate in the assembly; a front part (2)-deflection (2A) creating a supplemental lateral reference point (4").

In Claim 13, please substitute the claim as follows:

13. (Amended) Anti-kinetosis visual balancing device comprising at least two devices according to Claim 1, being connected in communication with each other.

In Claim 14, please substitute the claim as follows:

14. (Amended) Anti-kinetosis visual balancing device according to Claim 1, able to be applied in the military, medical, professional, comfort, or leisure fields, wherein said device is integrated or added onto glasses, or to a visor, or to a hat, or to a blinder, or to an optical device, or to a diving mask or a wetsuit, or to a photographic device, to a camera, or to a screen.

In Claim 15, please substitute the claim as follows:

15. (Amended) Anti-kinetosis visual balancing device according to Claim 1, able to be applied in the military, medical, professional, comfort, or leisure fields, wherein said device is arranged near or around on-board objects or even arranged in a space occupied by the passengers of a vehicle in a manner so as to be visible by them.

In Claim 16, please substitute the claim as follows:

16. (Amended) Anti-kinetosis visual balancing device, manifested in a virtual or luminous image of lateral vision reference points (4, 4') described in the visual balancing devices according to Claim 1, said virtual or luminous image being projected or integrated onto the articles or systems designed to produce an anti-kinetosis effect, such as, for example, lenses of glasses, frames of glasses, book covers, display consoles, screens, vehicle windshields; wherein said virtual image is obtained from an electronic device comprised of a sensor so as to detect variations of a position relative to gravitation, a computer for handling information transmitted by the sensor and an imaging or lighting system controlled by this computer and made available to an eye of a user of these articles or systems in the form of luminous reference points arranged inside the user's field of vision, in a manner such that the user can visually perceive, in the user's environment, a situation corresponding to the one that the semi-circular channels of the inner ear perceive.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: JEANNIN, Hubert

SERIAL NO.: (International Serial No. PCT/FR00/02568)

FILED: Herewith (International Filing Date: September 15, 2000)

TITLE: SIGHT LOCKING DEVICE

REMARKS ON PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In this preliminary amendment, please consider the following remarks in conjunction with the amendments to the above-identified application as follows:

REMARKS

The present Preliminary Amendment has been entered for the purpose of placing the application into a more proper U.S. format. In particular, certain grammatical and idiomatic inconsistencies have been corrected by amendment to the specification, and the application is corrected for certain typographical errors found in the originally submitted application. No new matter has been added by these amendments. The present application incorporates the original filing including the amendments made in the annex to the International Preliminary Examination Report and any changes to the drawing sheets.

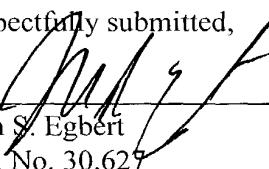
The Claims have been amended so as to conform with U.S. requirements and so as to remove multiple dependent claims.

Applicant respectfully requests that the present Amendment be entered prior to an initial Official Action on the present application.

\_\_\_\_\_  
Date

3-11-02

Respectfully submitted,

  
John S. Egbert  
Reg. No. 30,627  
Attorney for Applicant

Harrison & Egbert  
412 Main Street, 7<sup>th</sup> Floor  
Houston, Texas 77002  
(713)224-8080  
(713)223-4873 fax

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: JEANNIN, Hubert

SERIAL NO.: (International Serial No. PCT/FR00/02568)

FILED: Herewith (International Filing Date: September 15, 2000)

TITLE: SIGHT LOCKING DEVICE

VERSION WITH MARKINGS TO SHOW CHANGES in the PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In conjunction with the filing of the present application, and prior to an initial Official Action on this matter, please amend the above-identified application as follows:

IN THE SPECIFICATION

In Paragraph [0023], the paragraph has been amended as follows:

The goals, characteristics, and advantages above, and even others, are best exhibited in the description that follows and attached [drawings in which:] drawings.

In Paragraph [0032], the paragraph has been amended as follows:

Figure 9 is a flat plan view, having a schematic nature and in a section, of a visual balancing device made according to a first development of the invention.

In Paragraph [0033], the paragraph has been amended as follows:

Figure 10 shows [another interesting application] a schematic view of the invention in a windshield.

In Paragraph [0034], the paragraph has been amended as follows:

Figure 11 shows another schematic view of an advantageous development [example] of the invention projected on a lens or other body.

#### IN THE CLAIMS

In Claim 1, the claim has been amended as follows:

1. (Amended) Anti-kinetosis visual balancing device [characterized in that it is made of] comprising an impermeable, transparent or translucent tubular container (2) closed on itself, in which at least two substances (3; 5, 7, 8) are contained in different states and/or masses, from which at least one visible interface marks lateral vision reference points (4, 4') arranged in the peripheral field of vision of an eye or eyes of a user of this device, in a manner such that the user can visually perceive[, in his environment,] a situation corresponding to the one perceived by the semi-circular canals of the inner ear.

In Claim 2, the claim has been amended as follows:

2. (Amended) Anti-kinetosis visual balancing device according to claim 1, [characterized in that] wherein at least one (3) of the substances (3; 5, 7, 8), contained in the tube closed on itself, is comprised of a liquid.

In Claim 3, the claim has been amended as follows:

3. (Amended) Anti-kinetosis visual balancing device according to claim 2, [characterized in that the] wherein a second substance (5) contained in the tube (2) closed on itself, is [made up] comprised of a gaseous fluid, such as, for example, air.

In Claim 4, the claim has been amended as follows:

4. (Amended) Anti-kinetosis visual balancing device according to [one of the claims 1 or 2, characterized in that the] Claim 1, wherein said substances contained in the tube (2) closed on itself are [made up] comprised of liquids that [can not] cannot be mixed together.

In Claim 5, the claim has been amended as follows:

5. (Amended) Anti-kinetosis visual balancing device according to [one of the claims 3 or 4, characterized in that the] Claim 3, wherein said tube (2) closed on itself contains equal volumes of gas (5) and liquid (3) or liquids that [can not] cannot be mixed together.

In Claim 6, the claim has been amended as follows:

6. (Amended) Anti-kinetosis visual balancing device according to claim 3, [characterized in that the] wherein a volume of the gaseous fluid contained in the tube (2) closed on itself, [consists] is comprised of a single bubble (5').

In Claim 7, the claim has been amended as follows:

7. (Amended) Anti-kinetosis visual balancing device according to [any one of the claims 1 to 6, characterized in that] Claim 1, wherein at least one of the substances contained in the tube (2) closed on itself, is colored or stained.

In Claim 8, the claim has been amended as follows:

8. (Amended) Anti-kinetosis visual balancing device according to [any one of the claims 2 to 7, characterized in that the] Claim 2, wherein interface(s) of the substances (3, 5) contained in the tube (2) closed on itself are marked by a floating (6, 6') or submerged reference point.

In Claim 9, the claim has been amended as follows:

9. (Amended) Anti-kinetosis visual balancing device according to claim 2, [characterized in that the] wherein said second one of the substances contained in the tube closed on itself (2) is [made up] comprised of a floating solid [made up] comprised of a circular ring or of an circular portion of the ring (8) equipped with a weight (9).

In Claim 10, the claim has been amended as follows:

10. (Amended) Anti-kinetosis visual balancing device according to claim 1, [characterized in that] wherein one of the substances contained in the tube (2) closed on itself [consists] is comprised of a ball (7) of solid material that can be displaced in the tube (2).

In Claim 11, the claim has been amended as follows:

11. (Amended) Anti-kinetosis visual balancing device according to [any one of the claims 1 to 10, characterized in that the] Claim 1, wherein said tube (2) closed on itself [assumes the] has a general shape of a ring incorporated or added on, for example, to one or two lenses (V) of glasses, or to frames (M) of glasses, with or without lens(es).

In Claim 12, the claim has been amended as follows:

12. (Amended) Anti-kinetosis visual balancing device according to [any one of the claims 1 to 11, characterized in that the] Claim 1, wherein said tube [has] comprises at least one deflection (2A) that forms a bend with [the] a front part (2) of the visual balancing device, [this] said deflection communicating with [the] inside space of the front part (2) in such a way that the substances (3; 5) can circulate in the assembly[:] ;a front part (2)-deflection (2A)[, in] creating a supplemental lateral reference point (4").

In Claim 13, the claim has been amended as follows:

13. (Amended) Anti-kinetosis visual balancing device [according to any one of the claims 1 to 12, characterized in that] comprising at least two devices according to [these claims are] Claim 1, being connected in communication with each other.

In Claim 14, the claim has been amended as follows:

14. (Amended) Anti-kinetosis visual balancing device according to [any one of the claims 1 to 13,] Claim 1, able to be applied in the military, medical, professional, comfort, or leisure fields, [characterized in that it] wherein said device is integrated or added onto glasses, or to a visor, or to a hat, or to a blinder, or to an optical device, or to a diving mask or a wetsuit, or to a photographic device, to a camera, or to a screen.

In Claim 15, the claim has been amended as follows:

15. (Amended) Anti-kinetosis visual balancing device according to [any one of the claims 1 to 13,] Claim1, able to be applied in the military, medical, professional, comfort, or leisure fields, [characterized in that it] wherein said device is arranged near or around on-board objects or even arranged in a space occupied by the passengers of a vehicle in a manner so as to be visible by them.

In Claim 16, the claim has been amended as follows:

16. (Amended) Anti-kinetosis visual balancing device, [characterized in that it is] manifested in a virtual or luminous image of lateral vision reference points (4, 4') described in the visual balancing devices according to [any one of the claims 1 to 15, this] Claim 1, said virtual or luminous image being projected or integrated onto the articles or systems designed to produce an anti-kinetosis effect, such as, for example, lenses of glasses, frames of glasses, book covers, display consoles, screens, vehicle windshields[, where this] ;wherein said virtual image is obtained from an electronic device [consisting] comprised of a sensor [making it possible] so as to detect [the] variations of [the] a position relative to gravitation, [possibly,] a computer for handling [the] information transmitted by

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JC13 Rec'd PCT/PTO 11 MAR 2002

## SIGHT LOCKING DEVICE

### RELATED U.S. APPLICATIONS

Not applicable.

### STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not applicable.

### REFERENCE TO MICROFICHE APPENDIX

Not applicable.

### FIELD OF THE INVENTION

[0001] The invention presented here involves a visual balancing device, added onto or integrated into mobile objects, spectacle lenses, spectacle frames, or other supports, in order to provide for the users at least one reference point linked to gravity in their peripheral field of vision, and thus to prevent any inconvenience (loss of attention and nausea, general motion sickness) associated, in particular, with divergent perceptions of balance and sight.

[0002] The invention presented here is also aimed at numerous applications of the device in scientific, medical, comfort, leisure, or professional and, in particular, military fields.

### BACKGROUND OF THE INVENTION

[0003] A difference in perception between sight and balance (the inner ear) occurs when the individual is placed in a moving environment without visually perceiving this movement, and vice-versa. In fact, the eye perceives a stable environment inside of a moving object, for example, inside a cabin of a ship

that is moving, whereas the inner ear perceives the opposite information. It feels the ship's movement. This contradiction or difference in perception is the cause of motion sickness (sea sickness, air sickness, car sickness, etc.), also called kinetosis.

**[0004]** Several anti-kinetosis devices are currently available on the market, some of which are the object of patent applications. In the patent number WO 96/25685, for example, it is proposed, in order to act against kinetosis, to wear glasses that are particular in that they contain, on or in their lenses, an artificial horizon made up of a line visible to the user, held in a permanent horizontal position regardless of the lateral movements of the glasses or the of the head of the user. This patent also mentions, as prior art, in particular, the documents US 5,355,182, WO 91/00541, which reveal more or less complex devices that have the major disadvantage, just like the object of the document WO 96/25685, of presenting an artificial horizon line in the center of the individual's field of vision (location of fine perception, and image analysis). This artificial horizon line disrupts the visual acuteness of the user. This disruption does not encourage the systematic wearing of these glasses and moreover, their wearing as a preventive measure. This disruption is eliminated in the system described in the document EP 0,603,092 which allows the display of an artificial horizon in a zone called the "peripheral vision" in order to act against the spatial disorientations of pilots. This complex device mounted on the helmets of pilots is designed for very specific applications, in a manner so that it can not be permanently worn by all persons, and it causes other disadvantages that add to the ones of the current devices mentioned above.

**[0005]** The devices currently available for all persons, due to the fact of their complexity, are expensive, fragile, and possibly heavy (presence of several lenses or pistons at the level of the frames, etc.) and unaesthetic. They do not hold up well under the sizeable variations of temperature and pressure as well as under poor treatment by the user.

**[0006]** In addition, in these devices, the mobility of the artificial horizon line present in the individual's central field of vision is obtained solely by axial rotation, only the lateral swinging movements to the left or to the right (swaying) of the head or of the moving object are manifested in a more or less sizeable slope of this artificial horizon line inside the glasses without the anterior-posterior movements (pitching) movements, which correspond in particular to the backwards and forwards swinging or up and down swinging of the head, for example.

#### BRIEF SUMMARY OF THE INVENTION

**[0007]** The purpose of the present invention is to correct the disadvantages of the anti-kinetosis devices mentioned above.

**[0008]** According to the invention, this purpose is achieved by a visual balancing device that is added on or integrated to any support that must be positioned in the individual's peripheral field of vision, noteworthy in that it is made of a tube or pipe or any other container having the same principle closed on itself, impermeable, transparent or translucent, having a deflection or not, in which at least two substances are contained which are in different states and/or masses (for example, the one being in liquid form and the other in solid form (stained water and air)), such that the interfaces between these substances mark visible reference points.

**[0009]** These reference points steady the user's sight in agreement with the levels of the liquid of the inner ear. The visual balancing device is integrated or fixed to any support or another device, in a manner such that at least one of these reference points is positioned in the peripheral field of vision of one or both eyes of the user or even of the lenses of photographic devices, cameras, computer screens, or magnifying optical systems.

[0010] This positioning is made possible by any known mechanism in itself, and particularly by integrating or fixing this device to the inside or the outside of frames of glasses (with or without lenses), as well as inside or outside at least one of the lenses of the glasses, or diving masks, for example, or lenses of photographic devices, cameras, or magnifying optical systems, or various screens.

[0011] Due to the peripheral localization of the reference points or balances of the device, relative to the central field of vision, the individual is not disturbed in his perception of the central image when he uses the device.

[0012] In addition, the role of the peripheral field of vision and the functioning mode of the inner ear are recalled for purposes of supplemental information. On the one hand, the peripheral vision is the location surrounding the central image (the “desired” image), the warning area of the central field of vision; on the other hand, the method of locating by the levels of the liquid in the preferred embodiment functions in manner that is fundamentally comparable to that of the inner ear; and thus, the use of the peripheral field of vision and locating by levels have all the ergonomic advantages of being easy to adapt.

[0013] In fact, the variation of the level of the substances contained in the device according to the invention (and thus of their interfaces) follows the movement of the head or of the moving object and thus corresponds to the variation of the levels of the liquid of the inner ear. The eye’s perception is steadied at all times by these reference points or interfaces as in the inner ear. With the positioning of this balancing device around or on the side of at least one eye, the perception differential is reduced by the arrangement at the best place in the field of vision, with the same type of information as that of the inner ear.

[0014] According to a preferred adaptation of the device of the invention, the tube closed on itself assumes the general shape of a ring or of a torus inserted or integrated into a lens or a frame with or without a lens, or even affixed by gluing or “clipping”, for example.

[0015] According to a preferred embodiment of the invention, at least one of the two substances that it contains is liquid in such a way that its functioning is fundamentally comparable to that of the inner ear.

[0016] According to the most simple embodiment of the device of the invention, the tube is filled with a preferably stained liquid, and contains, as a second substance, an air bubble, or other gas, or simply a ball with or without liquid. The ball or the bubble moves as a function of the swaying movements.

[0017] According to another embodiment of the device according to the invention, various substances having different appearances, not miscible among themselves, are contained in the tube that is closed onto itself. The reference points are made by the visible interfaces of these substances.

[0018] The assembly of the device for visual balancing can be entirely placed either above one or both eyes, for example, in a visor of a hat, or below or even on the side of the eyes, in a blinder, for example. A part of the device can be concealed allowing a single balance point to appear, in order to have the advantage of easier locating.

[0019] According to an advantageous adaptation of the device of the invention, the tube that is closed on itself having a general shape of a hollow torus, has, in addition, a communicating deflection, arranged to form an angle relative to the initial plane (plane containing the base unit, preferably in a ring, of the visual balancing device according to the invention). This deflection makes it possible to arrange a reference point in the third dimension. In fact, the interface(s) present in this modification or deflection thus move(s) as a supplement according to the “anterior-posterior” movements or pitching of the individual’s head or of the moving object.

**[0020]** According to another embodiment of the device of the invention, the rotating image is made in the general form of a weighted ring turning in another ring.

**[0021]** According to another embodiment of the device of the invention, the considerably enlarged mobile image is comprised of one or more columns connected to each other in the inside space of the moving object and containing various substances whose interfaces provide the visual reference points.

**[0022]** Due to the simplicity of the design of the device of the invention, its manufacturing cost is reduced. It is accessible to all persons.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

**[0023]** The goals, characteristics, and advantages above, and even others, are best exhibited in the description that follows and attached drawings in which:

**[0024]** Figure 1 is a front view and a sectional view, of a first concrete example, of the visual balancing device according to the invention, made according to a very simple embodiment mode, the layout in fine lines shows the placement of the eye relative to this device.

**[0025]** Figure 2 is a sectional view along the line 2-2 of Figure 1.

**[0026]** Figure 3 is a front and sectional view of the visual balancing device made according to a second simplified embodiment mode.

**[0027]** Figure 4 is a front and sectional view of the visual balancing device made according to a third simplified embodiment mode.

**[0028]** Figure 5 is a front and sectional view of the visual balancing device of the invention made according to a fourth simplified embodiment mode.

**[0029]** Figure 6 is a front and sectional view of the visual balancing device of the invention made according to a fifth embodiment mode.

[0030] Figure 7 is a front and sectional view of the visual balancing device of the invention made according to a sixth embodiment mode.

[0031] Figure 8 is a front and sectional view, having a schematic nature, of a pair of glasses whose frame consists of two visual balancing devices of the invention.

[0032] Figure 9 is a flat view, having a schematic nature and in a section, of a visual balancing device made according to a first development of the invention.

[0033] Figure 10 shows another interesting application of the invention.

[0034] Figure 11 shows another advantageous development example of the invention.

[0035] Reference is made to the drawings in order to describe the advantageous embodiment forms, though in no way restrictive, of the visual balancing device according to the invention.

#### DETAILED DESCRIPTION OF THE INVENTION

[0036] The device 1 according to the invention consists of a tube 2 made of any suitable materials having the qualities of sturdiness and, possibly, adequate flexibility, whereby these materials must be transparent or at the very least translucent, the tube whose ends are connected together in order to form a closed “interior” loop. This tube 2 is, for example, made of a plastic rigid or semi-rigid material, or of glass. This tube 2 closes on itself in order to assume various general shapes, for example, circular, ellipsoidal, rectangular shapes, etc. The characteristics of the material(s) used must allow it to contain, depending on the case, substances in various physical states, i.e. liquid, solid or gaseous. At least two substances 3 and 5 of different state and/or mass are contained in the tube 2, closed on itself, where these substances are not miscible among themselves.

[0037] According to the simplified embodiment example shown in Figures 1 and 2, the circular tube is filled up to the mid-height, with a stained liquid 3 such as colored water, for example, while the inside

upper volume of this tube is filled with a gas 5 such as air. The interfaces 4, 4' of the gaseous fluids 5 and the liquid 3 are clearly visible. These interfaces 4, 4' play the role of visual balancing points which, when the device is placed in front of the eye, maintain a stable position and are in phase with the liquid of the inner ear and reflect its movements.

**[0038]** The volume of gas contained in the toroid tube can be limited to a single bubble (Figure 4) that stays located in the upper part of the device regardless of the movements of the device around its center.

**[0039]** One of the substances contained in the toroid tube can consist of a solid body, having, for example, a spherical shape 7 (ball) that can be moved in the tube 2; such an embodiment mode is shown in Figure 5.

**[0040]** Depending on the relative mass of these substances present and their quantity, the reference points 4, 4' are positioned in the peripheral field, either in the upper part of the tube 2 that is closed on itself, as shown in Figure 4, or in the lower part, as shown in Figure 5, or in the middle part as shown in Figures 1, 2, and 3, all of the intermediate positions also being possible. For example, the liquid or fluid 3 can occupy approximately half of the space inside the tube 2, as shown in Figures 1 to 3, in a manner such that the interfaces 4, 4' with the air or the liquid 3 are located (when it is placed around the individual's eye in a "stable" position), in the state of rest, at mid-height of the ring 2, or in other words, at the horizontal position of the eye in the median peripheral field.

**[0041]** In order to allow a better view of the non-miscible liquid/gas or liquid/liquid interfaces, a small floating object or reference point 6, 6' can be placed at the level of these interfaces (Figure 3), these small floating reference points surfacing or submerging at the level of these interfaces.

**[0042]** According to another example of the implementation of the invention (not shown), the tube 1 is filled with two liquids that can not be mixed together (because of different density) and, preferably, having a different color, for example, in an equivalent proportion or almost equivalent. The visual

reference points for the peripheral vision are marked by the two boundary zones between the two liquids. According to the proportions of the liquids contained in the ring, their interfaces are closer or further apart.

**[0043]** According to another embodiment example of the device of the invention shown in Figure 6, a floating solid consisting of a circular ring or of a circular annular portion 8 equipped with a weight 9 is housed in the toroid tube 1 filled with liquid 3. In the first case, the ring 8 has two different colored portions and the weight 9 is arranged in the median part of one of these portions, while in the second case, the weight 9 is arranged in the median part of the floating body in the form of the semi-toroid 8, or another annular section.

**[0044]** According to another embodiment mode shown in Figure 7, the tube 2 has a roughly ellipsoid shape, and it is dimensioned so that it can be placed in the peripheral field of vision of both eyes of a person, in being connected to or incorporated in any adequate support (frames, diving masks, etc.).

**[0045]** The visual balancing device according to the invention, shown in Figures 1 to 6, in order to be functional, can be positioned in the peripheral field of vision of the eye O, or the two eyes, by any support mechanism, for example, by gluing on the frames of a pair of glasses (on which lenses may or may not be mounted), having at least one reference point 4, 4' or 6, 6', in the eye's peripheral field of vision. This device in the form of a ring has the advantage of easily being inserted into a frame for glasses. It can be integrated into a frame, or even comprise it. A pair of glasses consisting of a couple of visual balancing devices 1 according to the invention, is shown in a schematic manner in Figure 8. According to this embodiment mode, the toroid tubes 2 of the devices constitute the frames M of the lenses V of the glasses which, however, might not be equipped with optical lenses, as indicated above, taking into account the specific function of the device of the invention.

[0046] A more complex system can be devised (not shown) with two annular devices connected to each other at their top and at their base and to which the arms would be added in order to constitute an original and attractive glasses frame.

[0047] According to another arrangement characteristic of the invention shown in Figure 9, the tube 2 has a general rounded shape, or even has, in addition, laterally, a deflection 2A bent at an angle in communication with the inside space of the remaining part of the visual balancing device, this deflection 2A forming or able to form a right angle or an obtuse angle close to a right angle, with the ring 2, during the use of the device. The fluid substance 3 incorporated in the tube 2 and in the deflection 2A then has, with the second substance (whose physical state is either identical and has a mass/density different or different physical state), three interfaces. Three vision reference points 4, 4', 4" are then available to steady the user's eye. Two vision reference points 4, 4' are visible on the front part 2 of the device, while a third reference point 4" is visible on the deflection 2A which is in communication with the upper part and with the lower part of this front part.

[0048] By this deflection, the device according to the invention provides, in its usage position, a third reference point 4" in the peripheral field of vision outside of the eye and whose variation in level then reproduces the anterior-posterior movements. These three reference points specify and inform the eye about the positioning in three dimensions of the levels of the liquid present in the inner ear. This information thus has the advantage of informing the eye when it is "at verticality in the anterior/posterior direction".

[0049] When the device is made in the form of glasses, the deflections 2A comprise the rear portions of the arms of the glasses, and the line L-L includes the placement of the angle that forms the deflections with the remaining front part of the frame.

[0050] As shown above, it is easily understood that the user's eye, equipped with this device, steadies his vision using the reference points of this device which move in harmony with the liquid of the inner ear. The individual adapts his vision to the perception of the inner ear and is then no longer subject to inconveniences due to kinetosis.

[0051] The applications of this device according to the invention are numerous and multiple, for example, in the military, medical, professional, comfort, and leisure fields. The visual balancing device can be integrated or added onto glasses, to a visor, to a hat, to a blinder, to an optical device, to a diving mask or to a wetsuit, to a photographic device, to a camera, or to a screen.

[0052] It can be arranged near, onto or around the on-board objects such as, for example, a book cover, a console, a computer screen, or even arranged in a space occupied by the passengers or any moving objects transporting one or more persons on land, by air, or by sea, in a manner so as to be visible to them in the best possible conditions. For example, Figure 10 shows the visual balancing device 1, according to the invention, installed around the upper edge and the sides of the windshield P of a land vehicle.

[0053] According to another interesting development of the invention, the visual balancing device can be manifested in a virtual or luminous image of the same type, projected or integrated into a lens of glasses, frame, book cover, console, screen, etc., obtained by means of an electronic device consisting of, for example, a sensor (gyroscope or any other source of information or sensor of the environmental or mobile position) making it possible to detect the variations of the position relative to gravitation. The information, possibly after handling by a computer, is then made available to the eye or eyes by an imaging or lighting system, for example, in the form of an inside or outside perimeter of a screen, or in the form of an animation in one or more screens, wall-mounted or not, or columns, or even in the form of a lighting system, for example, by light beams, or even in the manner of column or display E using glass bulbs or light-emitting diodes (Figure 11).

## CLAIMS

1. Anti-kinetosis visual balancing device characterized in that it is made of an impermeable, transparent or translucent tubular container (2) closed on itself, in which at least two substances (3; 5, 7, 8) are contained in different states and/or masses, from which at least one visible interface marks lateral vision reference points (4, 4') arranged in the peripheral field of vision of an eye or eyes of a user of this device, in a manner such that the user can visually perceive, in his environment, a situation corresponding to the one perceived by the semi-circular canals of the inner ear.
2. Anti-kinetosis visual balancing device according to claim 1, characterized in that at least one (3) of the substances (3; 5, 7, 8), contained in the tube closed on itself, is a liquid.
3. Anti-kinetosis visual balancing device according to claim 2, characterized in that the second substance (5) contained in the tube (2) closed on itself, is made up of a gaseous fluid, such as, for example, air.
4. Anti-kinetosis visual balancing device according to one of the claims 1 or 2, characterized in that the substances contained in the tube (2) closed on itself are made up of liquids that can not be mixed together.
5. Anti-kinetosis visual balancing device according to one of the claims 3 or 4, characterized in that the tube (2) closed on itself contains equal volumes of gas (5) and liquid (3) or liquids that can not be mixed together.

6. Anti-kinetosis visual balancing device according to claim 3, characterized in that the volume of the gaseous fluid contained in the tube (2) closed on itself, consists of a single bubble (5').

7. Anti-kinetosis visual balancing device according to any one of the claims 1 to 6, characterized in that at least one of the substances contained in the tube (2) closed on itself, is colored or stained.

8. Anti-kinetosis visual balancing device according to any one of the claims 2 to 7, characterized in that the interface(s) of the substances (3, 5) contained in the tube (2) closed on itself are marked by a floating (6, 6') or submerged reference point.

9. Anti-kinetosis visual balancing device according to claim 2, characterized in that the second one of the substances contained in the tube closed on itself (2) is made up of a floating solid made up of a circular ring or of an circular portion of the ring (8) equipped with a weight (9).

10. Anti-kinetosis visual balancing device according to claim 1, characterized in that one of the substances contained in the tube (2) closed on itself consists of a ball (7) of solid material that can be displaced in the tube (2).

11. Anti-kinetosis visual balancing device according to any one of the claims 1 to 10, characterized in that the tube (2) closed on itself assumes the general shape of a ring incorporated or added on, for example, to one or two lenses (V) of glasses, or to frames (M) of glasses, with or without lens(es).

12. Anti-kinetosis visual balancing device according to any one of the claims 1 to 11, characterized in that the tube has at least one deflection (2A) that forms a bend with the front part (2) of the visual balancing device, this deflection communicating with the inside space of the front part (2) in such a way that the substances (3; 5) can circulate in the assembly: front part (2)-deflection (2A), in creating a supplemental lateral reference point (4").

13. Anti-kinetosis visual balancing device according to any one of the claims 1 to 12, characterized in that at least two devices according to these claims are connected in communication with each other.

14. Anti-kinetosis visual balancing device according to any one of the claims 1 to 13, able to be applied in the military, medical, professional, comfort, or leisure fields, characterized in that it is integrated or added onto glasses, or to a visor, or to a hat, or to a blinder, or to an optical device, or to a diving mask or a wetsuit, or to a photographic device, to a camera, or to a screen.

15. Anti-kinetosis visual balancing device according to any one of the claims 1 to 13, able to be applied in the military, medical, professional, comfort, or leisure fields, characterized in that it is arranged near or around on-board objects or even arranged in a space occupied by the passengers of a vehicle in a manner so as to be visible by them.

16. Anti-kinetosis visual balancing device, characterized in that it is manifested in a virtual or luminous image of lateral vision reference points (4, 4') described in the visual balancing devices according to any one of the claims 1 to 15, this virtual or luminous image being projected or integrated onto the articles or systems designed to produce an anti-kinetosis effect, such as, for example, lenses of glasses, frames of glasses, book covers, display consoles, screens, vehicle windshields, where this virtual image is obtained from an electronic device consisting of a sensor making it possible to detect the variations of the position relative to gravitation, possibly, a computer for handling the information transmitted by the sensor and an imaging or lighting system controlled by this computer and made available to the eye of the user of these articles or systems in the form of luminous reference points arranged inside the user's field of vision, in a manner such that he can visually perceive, in his environment, a situation corresponding to the one that the semi-circular channels of the inner ear perceive.

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## ABSTRACT OF THE DISCLOSURE

A sight locking device for preventing motion sickness, characterized in that it consists of an impermeable, transparent or translucent tubular container closed on itself. There are enclosed at least two substances having different states and/or masses, whereof at least one visible interface physically represents sight markers, when the device is positioned in the peripheral visual field of one eye or both eyes of the user. The invention is particularly and advantageously useful for producing spectacle inhibiting motion sickness.

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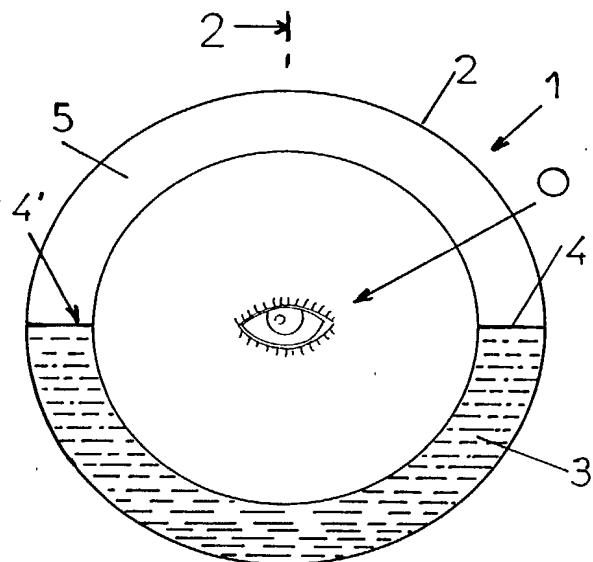


Fig.1

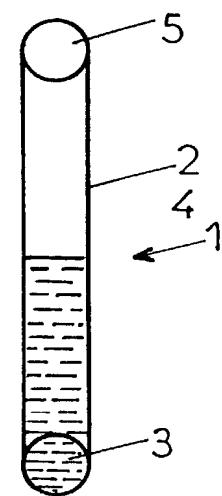


Fig.2

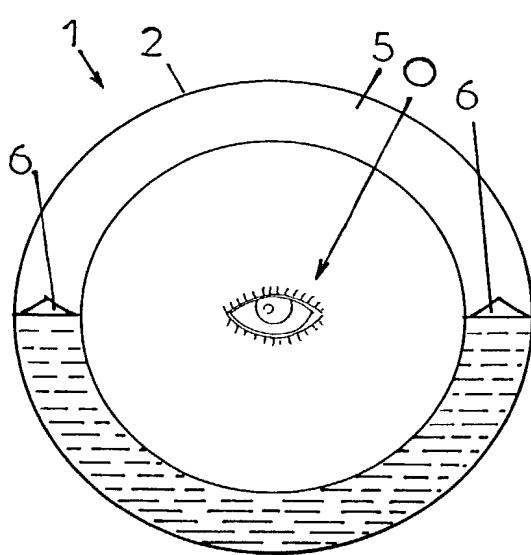


Fig.3

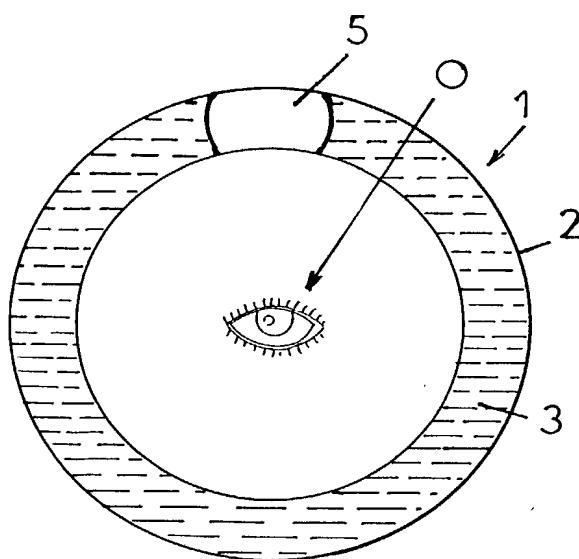


Fig.4

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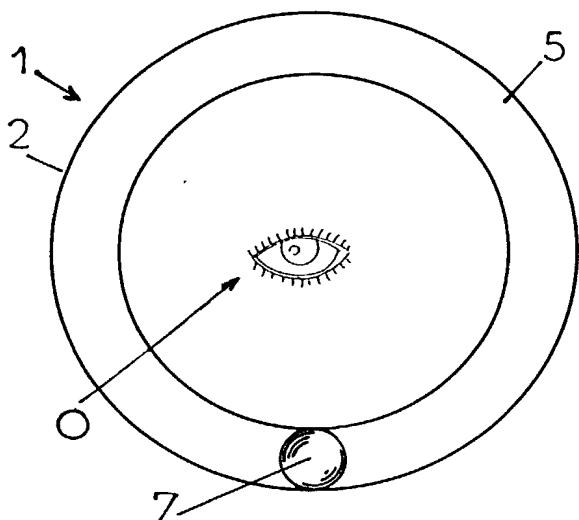


Fig.5

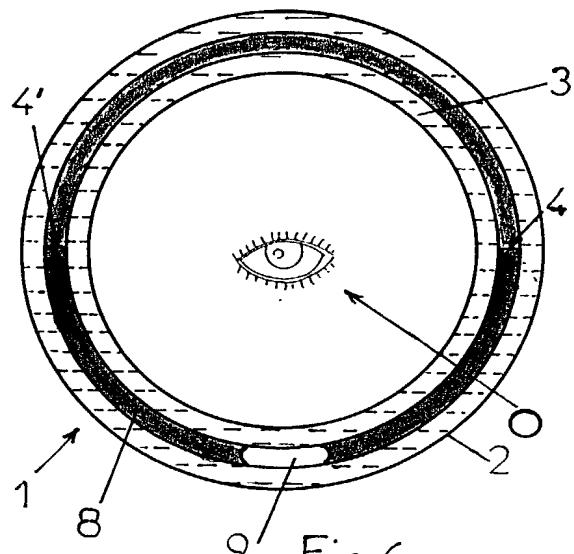


Fig.6

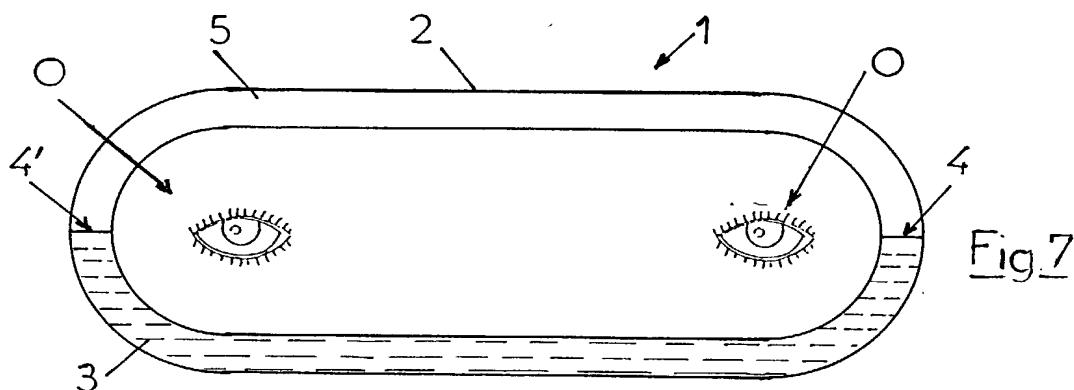


Fig.7

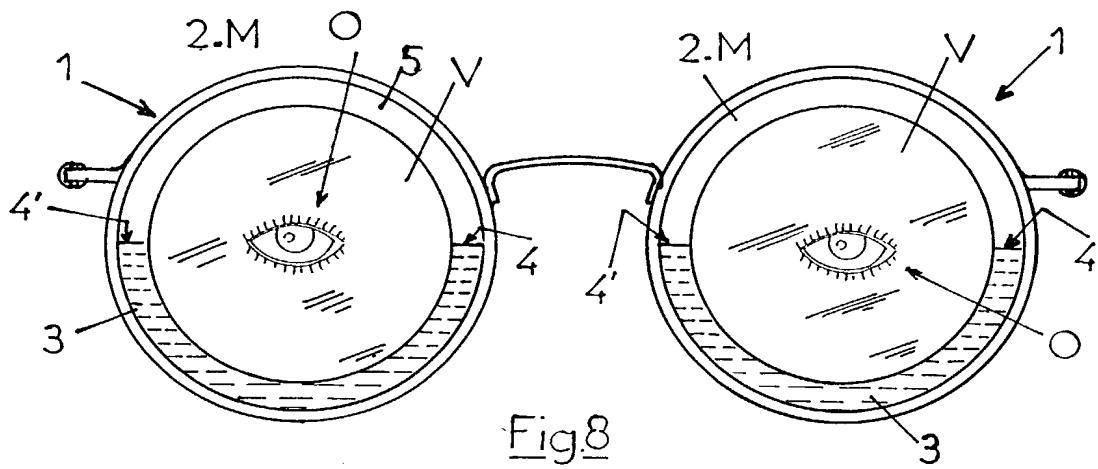


Fig.8

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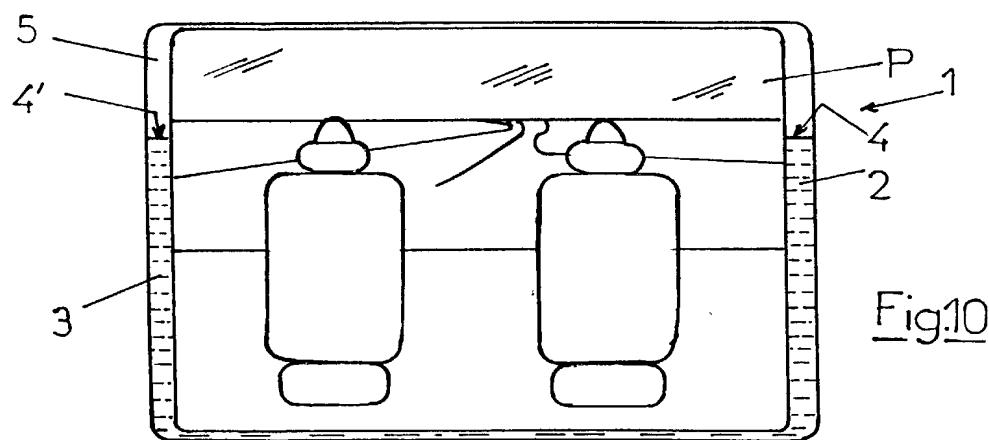
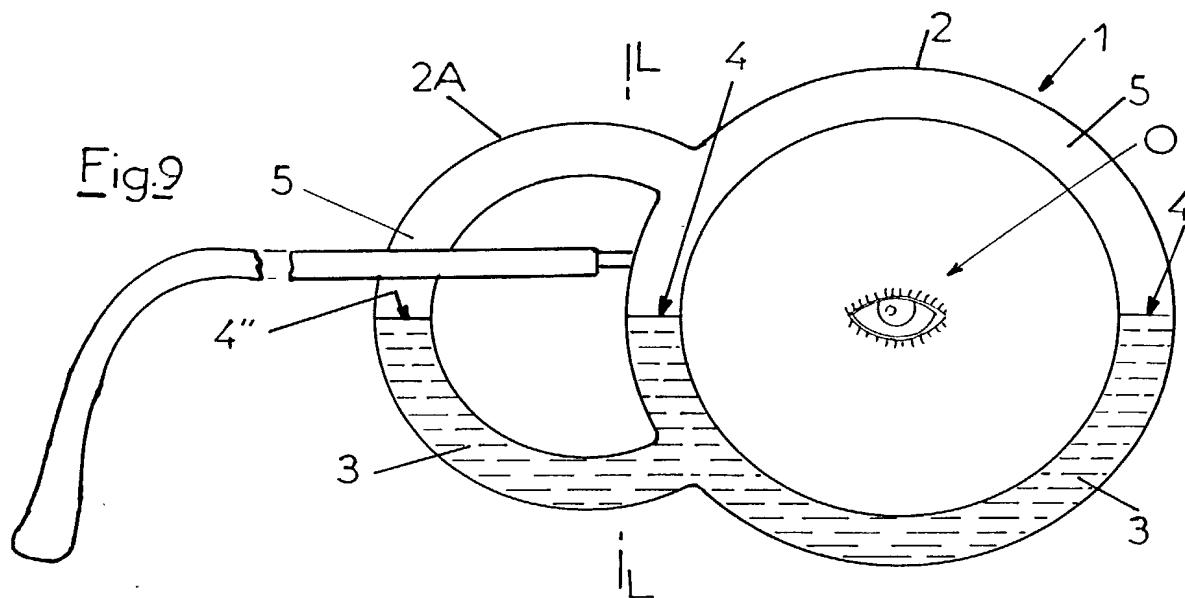
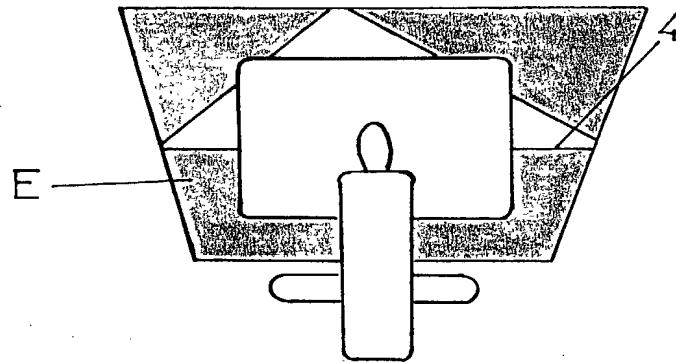


Fig. 11



## Declaration and Power of Attorney for Patent Application

## Déclaration et Pouvoirs pour Demande de Brevet

### French Language Declaration

En tant que l'inventeur nommé ci-après, je déclare par le présent acte que:

Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée

\_\_\_\_\_  
\_\_\_\_\_

et dont la description est fournie ci-joint à moins que la case suivante n'ait été cochée:

a été déposée le \_\_\_\_\_  
sous le numéro de demande des Etats-Unis ou le \_\_\_\_\_  
numéro de demande international PCT \_\_\_\_\_  
et modifiée le \_\_\_\_\_ (le cas échéant).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

Je reconnaiss devoir divulguer toute information pertinente à la brevetabilité comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

### SIGHT LOCKING DEVICE

the specification of which is attached hereto unless the following box is checked:

was filed on \_\_\_\_\_  
as United States Application Number or PCT  
International Application Number  
PCT/FR00/02568 and was amended on \_\_\_\_\_  
(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

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**Burden Hour Statement:** This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

(Declaration and Power of Attorney for Patent Application—French Language Declaration (PTO/SB/105)  
[1-14]—page 1 of 3)

**French Language Declaration**

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35 365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

**Prior foreign application(s)****Demande(s) de brevet antérieure(s)**

99 11855 France

(Number) (Country)

(Numéro) (Pays)

(Number) (Country)

(Numéro) (Pays)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.

(Application No.) (Filing Date)  
(N° de demande) (Date de dépôt)(Application No.) (Filing Date)  
(N° de demande) (Date de dépôt)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnaissais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations, dont j'ai pu disposer entre la date de dépôt de la demande antérieure et la date de dépôt de la demande nationale ou internationale PCT de la présente demande:

(Application No.) (Filing Date)  
(N° de demande) (Date de dépôt)(Application No.) (Filing Date)  
(N° de demande) (Date de dépôt)

Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, vérifiable et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour vérifiable; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365 (b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Priority Claimed  
Droit de priorité revendiqué

15 Sep. 1999

 yes(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)(Day/Month/Year Filed)  
(Jour/Mois/Année de dépôt)

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under Title 35, United States Code § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Status) (patented, pending, abandoned)  
(Statut) (breveté, en cours d'examen, abandonné)(Status) (patented, pending, abandoned)  
(Statut) (breveté, en cours d'examen, abandonné)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## French Language Declaration

POUVOIRS: En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'ils poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec l'Office des brevets et des marques: (mentionner le nom et le numéro d'enregistrement).

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: (list name and registration number)

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ANDREW W. CHU [Reg. No. 46,625]  
AL HARRISON [Reg. No. 31,708]  
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John S. Egbert; (713) 224-8080 (name and telephone number)

Nom complet de l'unique ou premier inventeur	1 - <u>∞</u>	Full name of sole or first inventor	<u>Hubert JEANNIN</u>
Signature de l'inventeur	<u>Hubert JEANNIN</u>	Date	<u>29 03 02</u>
Domicile	Residence <u>Ollioules, France FR</u>		
Nationalité	Citizenship <u>French</u>		
Adresse postale	Post Office Address <u>Clos de Chateau-Vallon</u>		
	83190 Ollioules FRANCE		
Nom complet du second co-inventeur, le cas échéant	Full name of second joint inventor, if any		
Signature du second inventeur	Date	Second Inventor's signature	Date
Domicile	Residence		
Nationalité	Citizenship		
Adresse postale	Post Office Address		

(Fournir les mêmes renseignements et la signature de tout co-inventeur supplémentaire.)

(Supply similar information and signature for third and subsequent joint inventors.)

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[1-14]—page 3 of 3)